

REMARKS

Entry of the foregoing, re-examination and reconsideration of the subject matter identified in caption, as amended, pursuant to and consistent with 37 C.F.R. §1.116, and in light of the remarks which follow, are respectfully requested.

Claims 9 and 10 have been amended to add the surface roughness feature disclosed on page 21, lines 8-9, of the specification. New claims 11 and 12 has been added. Support for the new claims may be found on page 14 of the Specification. Claims 9-12 are now pending in this application.

Claims 9 and 10 were objected to for the reason given in paragraph (2) of the Office Action. Respectfully, Applicants request reconsideration and clarification of the Examiner's position.

The claims clearly are directed to a semiconductor device test probe having a side surface and a tip portion having a spherical surface. It is not clear what constitutes the narrative portion of the claims and why this renders the claims indefinite. If the Examiner is referring to the preamble of the claims, such is merely a statement of intended use.

Claim 9 has been rejected under 35 U.S.C. §102(b) as anticipated by U.S. Patent No. 5,500,607 to Verkuil for the reasons given in paragraph (3) of the Office Action. Reconsideration is requested of this rejection in view of the above amendments and for at least the reasons which follow.

Verkuil '607, at column 3, lines 35-36, discloses "a round tip with a radius of curvature on the order of one-half (0.5) mils (or as expressed in microns, 12.5 μ m)." However, when the probe needle is used, the probe configuration is deformed to have a radius of curvature of, e.g., 3,500 μ m (about 135 mil). In Verkuil '607, this probe needle having a large radius of curvature is used to maintain mechanical stability and the needle is

simply vertically pressed against the oxide. No transverse movement of the probe needle is involved.

On the other hand, in the present invention, a probe needle having a radius of 10 - 20 μ m is pressed against an electrode pad and moved laterally to scrub it, whereby the fresh metal surface of the electrode pad is brought into a stable electrical contact with the tip of the probe. In actual tests, a plurality of probe needles are provided for the respective various electrode pads and they scrub the electrode pad at the same time.

Thus, the present invention is different from the cited reference in the object, advantageous results, object to be measured and in the technical concept.

Moreover, Verkuil '607 fails to disclose or suggest a test probe having a surface roughness as set forth in amended claim 9. Accordingly, the §102(b) rejection based on this reference should be withdrawn.

Claim 10 has been rejected under 35 U.S.C. §102(e) as anticipated by newly cited U.S. Patent No. 6,646,455 to Maekawa et al for the reasons given in paragraph (5) of the Office Action. Reconsideration and withdrawal of this rejection are respectfully requested in view of the above amendments and for at least the following reasons.

Claim 10 now includes the feature whereby the tip portion of the test probe has a surface roughness of 0.4 μ m or less. Maekawa et al '455 does not disclose a test probe having a surface roughness as now claimed. Accordingly, the §102(e) rejection based on this reference should be withdrawn and such action is earnestly requested.

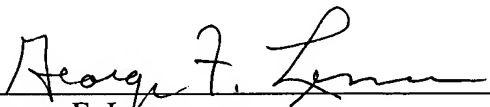
From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order and such action is earnestly solicited. If there are any

questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned at (703) 838-6683 at his earliest convenience.

Respectfully submitted,

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